

AMENDMENT

IN THE SPECIFICATION:

Please amend paragraph 30 as follows:

Figure 4 is a block diagram illustrating an ANC system 200 according to one embodiment of the invention incorporating normalization. This system 200 is similar to the system shown in Figure 3 except that the spectral shaping path ~~116~~ 112 and physical path ~~118~~ 114 have been modified to form a spectral shaping subsystem 202 incorporating normalization of the gain β . In this embodiment, the value of β_1 in Equation 5 is assumed to be the ideal gain ($\beta_1 = \beta_0$) while β_2 is normalized with respect to the actual system output. As a result, the normalized gain β_2 can be written as:

$$\beta_2 = \frac{\beta_0}{1 + K \tilde{P}_{output}}; \quad \beta_1 = \beta_0 \quad \text{Equation 6}$$

where K is a normalization coefficient, which can be determined from acceptable limits of residual error. As can be seen in Equation 6, the gain β_2 in the spectral shaping path decreases as the output power P_{output} increases, thereby limiting uncontrolled growth of the output.